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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/681,674	05/18/2001	Yoshifumi Natsuyama	JP920000096US1	3666

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EXAMINER

RUDE, TIMOTHY L

ART UNIT PAPER NUMBER

2871

DATE MAILED: 06/10/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/681,674

Applicant(s)

NATSUYAMA, YOSHIFUMI

Examiner

Timothy L Rude

Art Unit

2871

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 21 May 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-7 and 9-15 is/are pending in the application.
- 4a) Of the above claim(s) 1-3 and 9-15 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 4-7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

### ***Election/Restrictions***

2. Applicant's election of Group 2 (claims 4-8) in Paper No. 6 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

### ***Claim Objections***

3. Claim 7 is objected to because of the following informalities: The recitation "conductive anchor pins" does not explicitly appear in claims 4 or 5. Appropriate correction is required.

***Claim Rejections - 35 USC § 103***

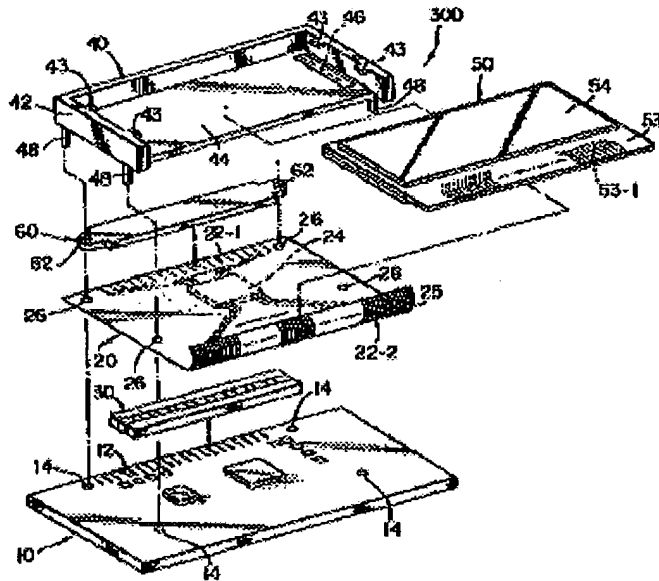
The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Muramatsu USPAT 6,191,838 B1 in view of Glaser et al (Glaser) USPAT 4,550,039.

As to claim 4, Muramatsu discloses in his third embodiment, Figures 11 and 12, (col. 10 line 66 through col. 13, line 6) a liquid crystal display device, 50, comprising: a pair of glass substrates facing each other, each having electrodes for applying voltage to a liquid crystal material on a facing surface (typical); a circuit board, 10, for supplying said voltage; and a liquid crystal driver tape carrier package, 20, (col. 11, lines 7-9 and col. 7, lines 1-3) for connecting said electrodes of said glass substrates to said circuit board and mounting a liquid crystal driver chip (col. 11, lines 7-9 and col. 7, lines 4-13), wherein said liquid crystal driver tape carrier package and said circuit board anchor holes, 26 and 14, and anchor pins, 48, are inserted into said anchor holes, whereby said liquid crystal tape carrier package is fixed to said circuit board (col. 11, lines 45-48).

Figure 11



Muramatsu does not explicitly disclose a display wherein said liquid crystal driver tape carrier package is soldered to said circuit board via said pins.

Glaser teaches the use of soldering conductive pins (col. 3, lines 44-49 and col. 3, line 67 through col. 4, line 11) to make electrical connections with more efficient routing of lead wires (col. 1, line 67 through col. 2, line 5), provide a more rigid mount, and reduce the cost of manufacturing.

Glaser is evidence that ordinary workers in the art of liquid crystals would find the reason, suggestion, or motivation to use soldering of conductive pins to make electrical connections with more efficient routing of lead wires, provide a more rigid mount, and reduce the cost of manufacturing.

Therefore, it would have been obvious to one having ordinary skill in the art of liquid crystals at the time the invention was made to modify the LCD of Muramatsu with the soldering of conductive pins of Glaser to make electrical connections with more efficient routing of lead wires, provide a more rigid mount, and reduce the cost of manufacturing.

As to claim 5, Muramatsu discloses the liquid crystal display device further comprising a light guide, 44 (Applicant's frame), for allowing said anchor pins to stand on a surface holding said pair of glass substrates, wherein said liquid crystal driver tape carrier package and said circuit board are fixed to said frame.

As to claim 6, Muramatsu discloses the liquid crystal display device wherein a pair of said anchor holes, 26, is located with said liquid crystal driver chip, 24, between (diagonally per Figure 11).

5. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Muramatsu in view of Glaser, as applied to claims 4-5 above, and further in view of Yamagishi et al (Yamagishi) USPAT 5,771,158.

As to claim 7, Muramatsu in view of Glaser discloses the liquid crystal display device according to claim 5.

Muramatsu in view of Glaser does not explicitly disclose a grounding conductor formed on said frame, and said conductive anchor pins are conductively connected to said grounding conductor.

Yamagishi teaches the use of a ground plane to reduce radiation emissions and avoid harmful interference with other electric appliances (col. 4, lines 44-65 and col. 3, lines 30-40).

Yamagishi is evidence that ordinary workers in the art of liquid crystals would find the reason, suggestion, or motivation to add a ground plane to reduce radiation emissions and avoid harmful interference with other electric appliances.

Therefore, it would have been obvious to one having ordinary skill in the art of liquid crystals at the time the invention was made to modify the LCD of Muramatsu in view of Glaser with the ground plane of Yamagishi to reduce radiation emissions and avoid harmful interference with other electric appliances.

***Response to Arguments***

6. Applicant's arguments, see Paper No 12, filed 21 May 2003, with respect to premature Finality have been fully considered and are persuasive. The Finality has been withdrawn.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy L Rude whose telephone number is (703) 305-0418. The examiner can normally be reached on Monday through Thursday.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert H Kim can be reached on (703) 305-3492. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9318 for regular communications and (703) 872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4900.



Timothy L Rude  
Examiner  
Art Unit 2871

TLR  
05 June 2003



ROBERT H. KIM  
SUPERVISORY EXAMINER  
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